

International Application PCT/DE 99/02091

R.35000

ROBERT BOSCH GMBH, 70422 Stuttgart

11/6/00

Specification pages

Electric Motor with Electromagnetic Brake

Prior Art

The invention proceeds from an electric motor with an electromagnetic brake means as claimed in the preamble of claim 1. An electric motor with an electromagnetic brake is known (GB 920,485) which has a stator with two poles which each have a pole shoe which projects to the inside and which is surrounded by a stator winding. The brake means comprises a brake element for braking of the rotor of the electric motor which is located symmetrically within one pole at a time and which is subjected to a braking force in the middle. The brake element can be adjusted against the braking force by the magnetic field of the stator winding. The defect is that the arrangement of the brake element within the pole does not allow high disengagement forces so that the brake element can only be exposed to a relatively small braking force. The maximum attainable braking action of the brake means is therefore only low so that the brake means is not suitable for use for example in angle grinders.

FR-A-1 098 914 discloses an electric motor with an electromagnetic brake, the stator of the motor having a pole with two arms which encompass the rotor. One of the two arms of the stator is supported to be able to swivel around an axis which is oriented parallel to the rotor axis. This arm thus forms a

Amended Page

swivelling lever, one of the two lever arms being exposed to a braking force in the form of a spring and the other lever arm being provided with a brake lining. Between the arm of the stator made as a lever and the stationary part of the stator there is a single stop surface in which the two parts strike one another when the motor is one. There is no stop for the end of the stator arm away from the stationary part of the stator.

Amended Page